

## CHAPTER III

### RESEARCH METHODOLOGY

This chapter presents methodological aspects of the study. It covers method of the study, research site and subjects, data collection method, data analysis method, and validity and reliability of the study. It provides the description of how the study was conducted.

#### 3.1 Research Methodology

As discussed in the previous chapter, this study is aimed to investigate the questioning strategies employed by the teacher along with the teacher's and students' perceptions toward the use of questioning strategies in managing classroom interaction. Teacher's perceptions are focused on three aspects, namely teacher's perceptions toward the implementation of questioning strategies, the advantages and disadvantages of questioning strategies and teacher's considerations in applying questioning strategies. Meanwhile, the students' perceptions are focused on the most helpful questioning strategy for the students along with the students' perceptions toward the implementation of questioning strategies. Therefore, the findings from this study are expected to provide information regarding teacher's questioning strategies in classroom interaction.

Considering the issue which were investigated in this study and also considering that this study was focused on the process of classroom interaction in a natural setting, a qualitative study embracing the characteristics of case study is considered appropriate to be applied in this study.

There are several characteristics of a case study in analyzing a subject. The characteristics are identified by activities during the investigation to the respondents in naturalistic setting. Bassey (1999) mentions that case study is a study involving taking extensive data from the subject being questioned or observed, trying to extract some meaning from the data obtained through the observation, and then trying to express and describe the meaning in a cogent way. Therefore, in this study, the primary data were collected through classroom observation equipped by video recording. The observation was conducted three times by focusing on the interaction between students and teacher during the teaching-learning process. In

this sense, this study is occurred in nature where there is no manipulating data given by the respondents since the data are obtained through direct observation.

In case study, the data usually collected and analyzed are in the form of interview data, observation data, document data, and audio-visual data (Cresswell, 2009). Therefore, the instruments such as observation, video recording, and interview are usually employed in the process of collecting the data. This is relevant to this study where the data were collected through observation by using video recording and the supported by interview.

### **3.2 Research Site and Subjects of the Study**

The site of this study was one of public senior high schools in North Cimahi. An English teacher and her students in XI IPA 2 class were the subjects of this research. The class consists of 38 students in their first semester. The school was chosen due to the availability of access to conduct the study there.

The teacher is selected to be the subject of this study on the basis of several considerations. The considerations are the availability and the experience of the teacher. The English teacher involved in this study has taught at the school for more than 10 years. It is obviously not a short period to have an experience in teaching. In addition, the teacher also mostly uses English as the medium of instruction in her class. Hence, the teacher and the class taught by the teacher were considered to be the potential subjects in this study. It was expected that this study is able to investigate the effective questioning strategies applied by the teacher in eliciting students' responses. Moreover, this study was intended to find out the teacher's and the students' perceptions toward the questioning strategies employed in the classroom interaction.

### **3.3 Data Collection**

There were two kinds of data collected in this study; they were transcription of classroom observation and interview notes. In order to gain both of kinds of data, there were two instruments used by the researcher to collect the data needed. The instruments were:

### **3.3.1 Classroom Observation (Video Recording-based observation)**

In this study, observation was used in collecting the data needed. The observation was specifically conducted in the classroom setting, since this study attempts to investigate the questioning strategies applied by the teacher. Classroom observation was conducted in this study in order to obtain the data directly from the subjects of the study. In addition, Hatch (2002) states, the goal of observation is to understand the culture, setting, or social phenomenon being studied from the perspective of the subjects.

By doing observation, it was expected that the researcher will have the opportunity to get as much information as possible regarding the issue being investigated. Unfortunately, there was a difficulty in carrying out the observation. It was true that several behaviors of interest occur rapidly in an educational setting. Then, this kind of behavior may be missed by the observer while doing the observation. Therefore, video-recording was utilized as the primary strategy in gathering and collecting the data needed in this study in order to get the details of the behaviors that were not covered through direct observation. Based on Hatch (2002), the use of video recording in collecting the data can provide a way of capturing contextualized face-to-face social behavior in greater detail that can be accomplished using other means.

In order to get the best understanding of the site and the individuals, conducting multiple observations over time is purposefully suggested (Cresswell, 2012, p. 215). Hence, observation and video-recording were conducted several times, which were started from 3 October 2013 to 17 October 2013. Each lesson was recorded for 2 hour lessons, which was equal to 90 minutes. In addition, the type of observation conducted in this study was nonsubject observation since the researcher played a role of a nonsubject observer who visits a site and record notes without being involved in the activities of the subjects (Cresswell, 2012).

### **3.3.2 Interview**

In order to support the data gained from classroom observation, an interview was also conducted in this study. This instrument was employed to investigate teacher's and the students' perceptions of the questioning strategies applied in the

classroom interaction. In addition, personal interview was chosen to be applied in this study.

The interview process was conducted after finishing the classroom observation and video-recording process. The interview was conducted from 6 January 2014 to 11 January 2014. There were totally ten subjects interviewed in this study. Those ten subjects included a teacher and nine students. The nine students are chosen based on their level of participation in the classroom. They are considered the representatives of the students who perform high, fair, and low participation in the whole classroom interaction. Therefore, there were three students from each level of participation. The students were selected based on the result of pre-observation conducted in the beginning of the study.

Semi-structured interview was employed in this study. It is intended to give much greater freedom to ask, in case of need, supplementary questions or even to omit certain questions if the situation so requires (Kothari, 2004). However, even though being given freedom, since this is a semi-structured interview, the interviewer still needs to follow some predetermined questions and procedures. For the teacher, the questions in the interview included teacher's questioning habit in classroom interaction, teacher's perception toward the questioning strategies applied in classroom interaction, teacher's rationales in applying questioning strategies and the advantages and disadvantages of applying questioning strategies from the teacher's perspective. Meanwhile, for the students, the questions given were related to students' perceptions and opinions of the questioning strategies applied by the teacher in classroom interaction, the most helpful questioning strategy from the students' perspective, and the advantages and disadvantages of the implementation of questioning strategies in classroom interaction. (The full transcripts of the interview can be seen in Appendix 2 and 3)

The interview process was recorded by audio recorder. The use audio recorder was intended to help the interviewer in gaining the more detailed data during the interview. There are several strengths of the use of audio-recording in obtaining the data needed from interview process. They are (1) preserving the actual language of the interviewee, (2) the data can objectively be recorded, (3) the data characteristic is natural, (4) it records interviewer's contributions as well, and (5) the data can be re-analyzed after the interview (Walker, 1985, as cited in Nunan,

1992, p. 153). Consequently, the data gained from this instrument were in the form of interview notes and audio-recording. The audio recording was transcribed and analyzed to answer the second and third research questions regarding teacher's and students' perceptions toward the questioning strategies applied by the teacher in the classroom interaction.

### 3.4 Data Analysis Method

There were several steps conducted in analyzing the data collected in this study since the data were also collected through several instruments. The analysis was intended to answer the research questions stated in the previous chapter.

The first data analysis conducted was data analysis from observation. The observations used in this study were classified into two types, namely pre-observation and post observation. Pre-observation was intended to know the general situation and general characteristics of the teacher and the classrooms who were the subjects of this study. Also, it was intended to get the focus of what is going to be observed. Meanwhile, post observation was intended to collect the primary data needed for this study.

The data collected from post observation were in the form of video transcriptions transcribed from the video recording. The data gained from video recording were analyzed to find out what kind of strategies that are effective to elicit students' responses. Then, the stages of analyzing the data from video recording were as follows:

1. Transferring the video into computer in order to make it easier to analyze the data.
2. Watching and observing the video carefully.
3. Taking notes of some significant events or situation that may occur during the teaching-learning process. There was no check-list equipped in this taking notes process.
4. Transcribing the video to display the language used in the classroom.
5. Coding the data obtained from the video. The data were coded by using IRF (Initiation-Response-Follow up) coding system proposed by Sinclair and Coulthard (1975).

6. Classifying and categorizing the questioning strategies appeared in the three lessons then make a tally of the frequencies of questioning strategies in the lessons video.
7. Calculating the number of questioning strategies employed by the teacher in the whole classroom interaction. This was intended to see the percentage of questioning strategies applied by the teacher.
8. Classifying and categorizing the questioning strategies employed by the teacher using Chaudron (1988), Wu (1993), Anwar (2000) and Tsui et al. (2004) frameworks. The questioning strategies were classified into several categories, such as repetition, rephrasing, simplification, decomposition, probing, exemplification, blank-filling, code switching, and wait-time according to the characteristics of the questioning strategy itself.
9. Interpreting and discussing the data to address the research questions regarding the effective questioning strategies applied by the teacher in the classroom.
10. Concluding/drawing conclusions of the findings. The findings and discussions place into conclusions and suggestions to exemplify the study entirely.

It is expected that from this analysis, the study can investigate the strategies applied by the teacher in eliciting information needed and in eliciting students' responses through the aspect thoroughly observed.

Meanwhile, the data collected from interview was in the form of an interview transcription. The transcriptions were also explored and coded to acquire teacher's and students' inner thoughts toward the questioning strategies applied in establishing communicative classroom interaction.

In order to support the result of the analyzed data from video recording, an interview was conducted in this study. The interview involved the teacher and some nine students. The nine students were selected based on their level of participation in the classroom; high, middle, and low level of participation. Therefore, there were equally three representatives from each level of participation.

The questions of the interview were focused on the teacher's and the students' perceptions or inner thoughts regarding the questioning strategies applied

by the teacher in the classroom interaction. Audio recorder was utilized during the interview process. Hence, the data were analyzed similarly with how the data collected through video recording was analyzed. The stages of analyzing the data collected through interview can be seen as follows:

1. Transferring the audio file into computer in order to make it easier to analyze the data.
2. Listening to the audio carefully.
3. Selecting the data, which was the appropriate data and which was not.
4. Transcribing the audio file to make it easier to be analyzed.
5. Analyzing the transcription of the data collected through interview. The analysis was focused on addressing the second and the third research questions, which were related to teacher's and students' perceptions toward the effective questioning strategies applied in classroom interaction. The result of this analysis was intended to support the result of video recording data analysis.
6. Interpreting and discussing the data taken from the interview process to address the research questions.
7. Concluding the findings into conclusions and suggestions for further study.

### **3.5 Validity and Reliability of Research Instruments**

Throughout the process of data collection and analysis, it is important for a researcher to make sure that the findings and interpretation of the study are accurate. Therefore, validating findings is an important stage to be conducted in order to make the study more valid and reliable.

In order to avoid some biases and subjectivity in capturing the research findings in this study, the researcher applied two kinds of strategies in validating the research findings namely triangulation and member checking.

To apply this trustworthiness, three instruments of collecting the data were employed which were video recording, classroom observation, and interview. It was expected that by using multiple or various methods in collecting the data, this study can reduced bias causing the subject.

Meanwhile, member checks or member checking is a process in which the researcher asks one or more subjects in this study to check the accuracy of the result of the study (Creswell, 2012). Member checks or member checking was applied in this study in order to determine whether the findings are accurate. In addition, Alwasilah (2000) mentions several advantages that can be taken from applying member checks or member checking. They are (1) preventing the misinterpretation of the subjects' answers during interview process, (2) preventing the misinterpretation of subjects' behavior during observation process, and (3) clarifying the subjects' perspectives toward certain process occurring. Therefore, in this study, the researcher involved taking the findings back to the subjects. Due to some considerations, the subject involved in member checking process was the teacher. The teacher, then, was asked to read and check the research findings including the questioning strategies applied by the teacher in her classroom and her perceptions toward the questioning strategies applied in her classroom interaction.

### **3.6 Concluding Remarks**

This chapter has described the methodology underpinning the study. This study was mainly aimed at investigating the questioning strategies applied by the teacher in eliciting students' responses. Furthermore, this study also attempts to find out the teacher's and students' perceptions toward the questioning strategies used by the teacher in classroom interaction. Since this study was focused on the process of classroom interaction in a natural setting, a qualitative study embracing the characteristics of case study is considered appropriate to be applied in this study.

An English teacher and 38 students of a public senior high school in Cimahi were involved in this study as the subjects. Qualitative approach was chosen to be used in analyzing the data gained through classroom observation (video-recording) and interview. The analysis of the data collected through video-recording were based on some theoretical frameworks namely Chaudron (1988), Wu (1993), Anwar (2000) and Tsui et al. (2004) frameworks. Further explanation regarding the aforementioned frameworks has been presented in Chapter II.